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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/903,081	07/10/2001	Richard E. Demaray	M-11522 US	1225
22852	7590	11/28/2005	EXAMINER	
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 901 NEW YORK AVENUE, NW WASHINGTON, DC 20001-4413			HOFFMANN, JOHN M	
			ART UNIT	PAPER NUMBER
			1731	

DATE MAILED: 11/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/903,081	Applicant(s) DEMARAY ET AL.	
	Examiner John Hoffmann	Art Unit 1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 October 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-20, 24-27 and 29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-20, 24-27 and 29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11 October 2005 has been entered.

Information Disclosure Statement

The information disclosure statements filed 11 October 2005 and 8/10/05 fails to comply with 37 CFR 1.98(a)(1), which requires the following: (1) a list of all patents, publications, applications, or other information submitted for consideration by the Office; (2) U.S. patents and U.S. patent application publications listed in a section separately from citations of other documents; (3) the application number of the application in which the information disclosure statement is being submitted on each page of the list; (4) a column that provides a blank space next to each document to be considered, for the examiner's initials; and (5) a heading that clearly indicates that the list is an information disclosure statement. The information disclosure statement has been placed in the application file, but the information referred to therein has not been considered.

The list fails to indicate the date, the complete date and/or the pages for each of the references.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The term “core layer deposit” is not mentioned in the specification.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 14-20, 24-27, and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 14 requires a “core layer deposit”. However there is no mention of this term in the specification thus it is unclear what this is. In particular since claim 14 already requires a core layer be over the ridge structure – it seems that the deposit is not the same thing as the core layer. But on the other hand, page 8 of the present response suggests that the “core layer deposit” is the same thing as “core material 20” and it refers to [0023] which also calls it “Core layer 20”. Thus, if they are the same thing, then there is confusing antecedent basis for “a core layer deposit”.

Alternatively and/or additionally – it is unclear if the core layer deposit and the core layer must be exactly the same, or if one can be something else in addition to the other.

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It is not understood what is meant by a “separate step of patterning the core layer” (as used in each independent claim). The specification fails to indicate what the step is “separate” from – and further what constitutes “patterning”. It is noted in the response of 3/10/ 2005 applicant argued that Kawaguchi does not teach excluding the separate step. To Examiner, figure 7 of Kawaguchi does disclose this (see rejection). Since there is disagreement as to whether Kawaguchi discloses this limitation, it is deemed that it is proper to hold this as being indefinite.

Furthermore, it is noted that there is no art-recognized meaning of the term pattern. See Rodgers 6133,670; col. 9, lines 37; Daby , c 4, line 9; Bakke, col. 4, line 22; Koskenmaki, col. 3, line 8 and Malhotra col. 4, line 42 for some of the diverse meanings that people use in the art. Given these different meanings, it is deemed that one of ordinary skill would not be able to ascertain whether she is infringing.

See Allen Eng'g Corp. V. Bartell Indus. Inc. 299 F 3d 1336, 1348, 63 USPQ2d 1769, 1775 (Fed. Cir. 2002) (quoting Personalized Media Communications, LLC v. Int'l Trade Comm'n, 161 F.3d 696, 705, 48 USPQ2d 1880, 1888 (Fed. Cir. 1998)) (“In determining whether the claim is sufficiently definite, we must analyze whether “one skilled in the art would understand the bounds of the claim when read in light of the specification.”) See also, Exxon Research & Eng'g Co. v. United States, 265 F.3d 1371, 1375, 60 USPQ2d 1272, 1276 (Fed. Cir. 2001) (citation omitted) (patent claims must be “sufficiently precise to permit a potential competitor to determine whether or not he is infringing”).

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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Claims 14-20, 24-27, and 29 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Examiner could find no support for the limitation that the process excludes a separate step of patterning the core layer. This is deemed to be a prima facie showing on failure to comply with the requirement. The burden is now on Applicant to show the requirement is complied with, or to amend the claims so that they comply.

As indicated in MPEP 2173.05(i) Negative Limitations

The current view of the courts is that there is nothing inherently ambiguous or uncertain about a negative limitation. So long as the boundaries of the patent protection sought are set forth definitely, albeit negatively, the claim complies with the requirements of 35 U.S.C. 112, second paragraph. Some older cases were critical of negative limitations because they tended to define the invention in terms of what it was not, rather than pointing out the invention. Thus, the court observed that the limitation "R is an alkenyl radical other than 2-butenyl and 2,4-pentadienyl" was a negative limitation that rendered the claim indefinite because it was an attempt to claim the invention by excluding what the inventors did not invent rather than distinctly and particularly pointing out what they did invent. *In re Schechter*, 205 F.2d 185, 98 USPQ 144 (CCPA 1953).

A claim which recited the limitation "said homopolymer being free from the proteins, soaps, resins, and sugars present in natural Hevea rubber" in order to exclude the characteristics of the prior art product, was considered definite because each recited limitation was definite. *In re Wakefield*, 422 F.2d 897, 899, 904, 164 USPQ 636, 638, 641 (CCPA 1970). In addition, the court found that the negative limitation "incapable of forming a dye with said oxidized developing agent" was definite because the boundaries of the patent protection sought were clear. *In re Barr*, 444 F.2d 588, 170 USPQ 330 (CCPA 1971).

Any negative limitation or exclusionary proviso must have basis in the original disclosure. If alternative elements are positively recited in the specification, they may be explicitly excluded in the claims. See *In re Johnson*, 558 F.2d 1008, 1019, 194 USPQ 187, 196 (CCPA 1977) ("[the] specification, having described the whole, necessarily described the part remaining."). See also *Ex parte Grasselli*, 231 USPQ 393 (Bd. App. 1983), *aff'd* mem., 738 F.2d 453 (Fed. Cir. 1984). **The mere absence of a positive recitation is not basis for an exclusion. Any claim containing a negative limitation which does not have basis in the original disclosure should be rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.** Note that a lack of literal

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basis in the specification for a negative limitation may not be sufficient to establish a prima facie case for lack of descriptive support. Ex parte Parks, 30 USPQ2d 1234, 1236 (Bd. Pat. App. & Inter. 1993). See MPEP § 2163 - § 2163.07(b) for a discussion of the written description requirement of 35 U.S.C. 112, first paragraph. (emphasis added by Examiner)

AND From MPEP 2163.04:**III. RANGE LIMITATIONS**

With respect to changing numerical range limitations, the analysis must take into account which ranges one skilled in the art would consider inherently supported by the discussion in the original disclosure. In the decision in *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976), the ranges described in the original specification included a range of "25%- 60%" and specific examples of "36%" and "50%." A corresponding new claim limitation to "at least 35%" did not meet the description requirement because the phrase "at least" had no upper limit and caused the claim to read literally on embodiments outside the "25% to 60%" range, however a limitation to "between 35% and 60%" did meet the description requirement.

See also *Purdue Pharma L.P. v. Faulding Inc.*, 230 F.3d 1320, 1328, 56 USPQ2d 1481, 1487 (Fed. Cir. 2000) ("[T]he specification does not clearly disclose to the skilled artisan that the inventors... considered the... ratio to be part of their invention.... There is therefore no force to Purdue's argument that the written description requirement was satisfied because the disclosure revealed a broad invention from which the [later-filed] claims carved out a patentable portion"). Compare *Union Oil of Cal. v. Atlantic Richfield Co.*, 208 F.3d 989, 997, 54 USPQ2d 1227, 1232-33 (Fed. Cir. 2000) (Description in terms of ranges of chemical properties which work in combination with ranges of other chemical properties to produce an automotive gasoline that reduces emissions was found to provide an adequate written description even though the exact chemical components of each combination were not disclosed and the specification did not disclose any distinct embodiments corresponding to any claim at issue. "[T]he Patent Act and this court's case law require only sufficient description to show one of skill in the . . . art that the inventor possessed the claimed invention at the time of filing.").

(emphasis added by Examiner)

It appears that applicant merely added the negative limitation merely to carve out a patentable portion. Examiner also notes the additional issue: Applicant only excludes "separate" steps of patterning. So, even if the specification excludes patterning, there is

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still no basis to exclude the specific steps which are separate – again it would appear to be a carving out.

Moreover, Malhotra at col. 4, lines 42-44 suggests that “patterning” is the formation of a particular layer such that the layer exhibits a specified pattern. As Examiner reads Applicant’s specification it appears that Applicant’s depositing step is a patterning step that is separate from all the other steps. Thus Applicant’s process seems to be excluded from the present claims.

Alternatively for claim 24 and 29: Examiner takes Official notice that mixed frequency power supplies for sputtering were (at the time of the invention) well known and had well known advantages. It would have been obvious to use a mixed frequency power supply for any/all of their well-known advantages.

Claim Rejections - 35 USC § 103

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nourshargh 4619680 in view of Weber 6356694

Figures 2a-b of Nourshargh shows the ridge structure being formed in the layer. Figure 2c represents the first depositing step: 14 is the core layer over the ridge structure. Figure 2d represents the second depositing step 15 is the upper cladding. The refractive index limitations are clearly met.

Nourshargh does not disclose a "core layer deposit". Weber teaches to place a fluoride layer around all the surfaces "Prior to each step for depositing a new layer" so as to protect the core and prevent diffusion of dopants. See Weber: abstract, figure 1D, and

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col. 1, lines 45-52. This fluoride layer is deemed to be a "core layer deposit" because it is deposited on the core; examiner presumes this to be consistent with the broadest reasonable interpretation of the term.

The PTO gives a disputed claim term its broadest reasonable interpretation during patent prosecution. Hyatt, 211 F.3d at 1372. The "broadest reasonable interpretation" rule recognizes that "before a patent is granted the claims are readily amended as part of the examination process." Burlington Indus. v. Quigg, 822 F.2d 1581, 1583 (Fed. Cir. 1987). Thus, a patent applicant has the opportunity and responsibility to remove any ambiguity in claim term meaning by amending the application. In re Prater, 415 F.2d 1393, 1404-05 (CCPA 1969). Additionally, the broadest reasonable interpretation rule "serves the public interest by reducing the possibility that claims, finally allowed, will be given broader scope than is justified." In re Am. Acad. of Sci. Tech. Ctr., 367 F.3d 1359, 1364 (Fed. Cir. 2004) (quoting In re Yamamoto, 740 F.2d 1569, 1571-72 (Fed. Cir. 1984)).

Nor has Applicant defined (or used or described) the term in a manner which excludes the Weber layer. It would have been obvious to apply the Weber protective layer before each new Nourshargh layer is deposited as taught by Weber – for the advantages of Weber.

Claims 15-17, 24-26 and 29 (and 14) are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Kawaguchi 6605228, Klein 3850604, Nourshargh 4619680 and Weber as set forth below.

It is noted that Kawaguchi and Klein are not needed for the rejection of claim 14 as can be seen by the above rejection in view of Nourshargh and Weber. However,

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Kawaguchi is necessary to be the base patent even though it does not teach a majority of the limitations

Kawaguchi discloses the invention as claimed (see rejection of 02/12/2004) but not the specifics of the sputtering. Klein is cited as teaching what one of ordinary skill would recognize to be sputtering (see col. 4, lines 4-15). Thus it is deemed that one of ordinary skill would inherently understand Kawaguchi's sputtering to be what is presently claimed; alternatively it would have been obvious to use Klein's sputtering, because that is typically what is done.

Kawaguchi and Klein do not teach the claimed forming and depositing steps. However, Nourshargh discloses that there are two modes of forming core in cladding structures in planar optical waveguides. See col. 1, lines 38-50 and figures 2 and 3 of Nourshargh which discloses "removal of the rest of the first layer is not required", and that "the second layer of glass can be immediately deposited". It would have one been obvious to form the Kawaguchi waveguide by using the Nourshargh mode of figure 2, so that one can immediately form the second layer over the first layer.

As further optional justification for the combination, applicant is referred to the last Office action which discusses that rearranging steps is generally not invention.

And, as discussed above, Nourshargh does not teach the "deposit". Weber teaches to place a fluoride layer around all the surfaces "Prior to each step for depositing a new layer" so as to protect the core and prevent diffusion of dopants. See Weber: abstract, figure 1D, and col. 1, lines 45-52. This fluoride layer is deemed to be

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a "core layer deposit" because it is deposited on the core; examiner presumes this to be consistent with the broadest reasonable interpretation of the term.

Nor has Applicant defined (or used or described) the term in a manner which excludes the Weber layer. It would have been obvious to apply the Weber protective layer before each new Nourshargh layer is deposited as taught by Weber – for the advantages of Weber.

Claims 16 and 29 are clearly met.

Claim 17 – see prior Office action which discuss externally supplied power. Examiner takes Official notice that radio waves of numerous frequencies permeate all space. It is inherent that these waves have power. Thus it is inherent that the second frequency power is applied.

Claims 24-26: see the Office action of 9/10/04 as to why these limitations would have been obvious.

Claims 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawaguchi 6605228 in view of Klein 3850604 and Kestigian 4915810.

Kawaguchi discloses the invention as claimed (see rejection of 02/12/2004) but not the specifics of the sputtering. Klein is cited as teaching what one of ordinary skill would recognize to be sputtering (see col. 4, lines 4-15). Thus it is deemed that one of ordinary skill would inherently understand Kawaguchi's sputtering to be what is

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presently claimed; alternatively it would have been obvious to use Klein's sputtering, because that is typically what is done.

Figure 7a of Kawaguchi shows the forming step. Figure 7b is the depositing a core layer "to form an intermediate structure" as shown in figure 7d; "to form" is an intention which does not require any immediacy to a/the resultant intermediate structure. This does not have any patterning – as per the definition of patterning or Rodgers 6133670, col. 9, lines 37-52. This definition is deemed to give the broadest reasonable interpretation (or something similar thereto). Alternatively, it is not a "separate" patterning because it is an integral part of the formation of an intermediate structure (see present claim 18, line 5).

Figure 7e represents the depositing of the upper cladding layer.

The refractive index limitations are met as discussed in the prior Office actions.

Kawaguchi/Klein do not teach the two regions/materials of the target. Kestigan discloses making targets of two compositions so as to control the deposition composition and to avoid the "expensive and time-consuming empirical procedure". It would have been obvious to use a Kestigan type target in the Kawaguchi/Klein method so that one can readily control the composition as taught by Kestigan.

Present claim 18 also requires the central region and outer regions. These regions are not limited in the claims. They can each comprise more than one material. One can envision various such regions in Kestigan Figure 2. For example each big circle is an outer region and the circle of R1 or R2 is the central region. Alternatively radius R1 circumscribes the inner region. And region between R2 and R1 is an outer

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region and the region between R2 and R3 is a second outer region. Each of the regions comprises both materials: the claims are open to including additional materials in all regions.

Claims 19-20 are clearly met.

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kawaguchi 6605228 in view of Klein 3850604, Weber, Nourshargh 4619680 and Makikawa 6615614.

Kawaguchi, Klein and Nourshargh are applied as above, but do not disclose the claimed manner of making the ridge structure. Makikawa discloses that rather than etching a deposited glass layer to make depressions, one can etch silicon and then thermally oxidize the silicon and this results in non-deformed substrate, thinning of the glass layer due to etching, and results in pure quartz layer that minimizes insertion loss, and avoids industrially inadequate measures need countermeasure various deficiencies in the glass-etch method. See col. 1, lines 49-51, 55-60, col. 1, line 67 to col. 2, line 6; col. 2, lines 37-38. It would have been obvious to form the Kawaguchi - Klein - Nourshargh undercladding by thermally oxidizing an etch silicon substrate – as disclosed by Makikawa for one or more of the advantages that Makikawa discloses.

Response to Arguments

Applicant's arguments filed 11 October 2005 have been fully considered but they are not persuasive.

IT is argued that Kawaguchi does not read on the claims because Kawaguchi had patterning. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). This also applies to all of the other arguments that various references do not teach the patterning exclusion.

As to the combination, it is argued that one cannot combine Nourshargh with Kawaguchi because Kawaguchi requires patterning. This is not convincing because the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In other words: it is largely irrelevant that the references can't be combined in the manner that applicant argues. Rather it only matters whether the particular combination of references as set forth in the rejection would have been obvious. Clearly if one takes the Nourshargh teaching and apply it to Kawaguchi, one would not have to pattern the core layer as Kawaguchi discloses.

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In response to applicant's arguments against the references individually, (i.e. that Kawaguchi does not have the second radio frequency power) one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Furthermore, it is argued that claim 29 defines over the prior art because the rejection does not adequately explain the second radio frequency power and/or because Examiner mischaracterizes applicant's invention. Examiner believes the two proffered bases are cogent and to the degree that Examiner might mischaracterize the invention – applicant has failed to point out how Examiner's interpretation is improper or incorrect. Examiner can imagine some rather narrow interpretation for the applying the power – however the Examiner is in no position to arbitrarily limit the scope of the claims to exclude anything. If applicant believes Examiner interpreted the claims too broadly, the duty and responsibility to narrow the claims – or to point out Examiner's specific error(s) – lies with Applicant. Examiner made Examiner's best determination as to what the claims encompass.

The PTO gives a disputed claim term its broadest reasonable interpretation during patent prosecution. *Hyatt*, 211 F.3d at 1372. The "broadest reasonable interpretation" rule recognizes that "before a patent is granted the claims are readily amended as part of the examination process." *Burlington Indus. v. Quigg*, 822 F.2d 1581, 1583 (Fed. Cir. 1987). Thus, **a patent applicant has the opportunity and responsibility to remove any ambiguity** in claim term meaning by amending the application. *In re Prater*, 415 F.2d 1393, 1404-05 (CCPA 1969). Additionally, the broadest reasonable interpretation rule "serves the public interest by reducing the possibility that claims, finally allowed, will be given broader scope than is justified." *In re*

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Am. Acad. of Sci. Tech. Ctr., 367 F.3d 1359, 1364 (Fed. Cir. 2004) (quoting In re Yamamoto, 740 F.2d 1569, 1571-72 (Fed. Cir. 1984)).

To reiterate: the claim “second radio frequency power” encompasses any non-zero amount of power that occurs within a frequency range of about 3 kHz- 30 MHz. Such can come from radio stations, the sun or from processing apparatus. And if such an interpretation is not convincing: using as an analogy of the photon model of light – the power of one set of photons would be different from the power associated with a different set of photons – and thus different portions of the substrate would receive different powers/photons as claimed.

Lastly, to the degree that the limitations are limited to mixed frequency power supply, the rejection now encompasses such. See the Official Notice taken.

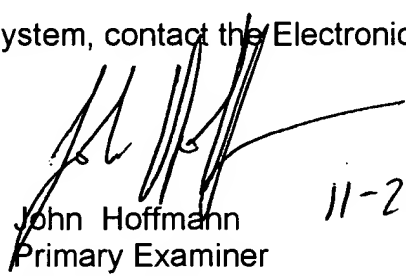
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is (571) 272 1191. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John Hoffmann
Primary Examiner
Art Unit 1731

11-21-05

jmh